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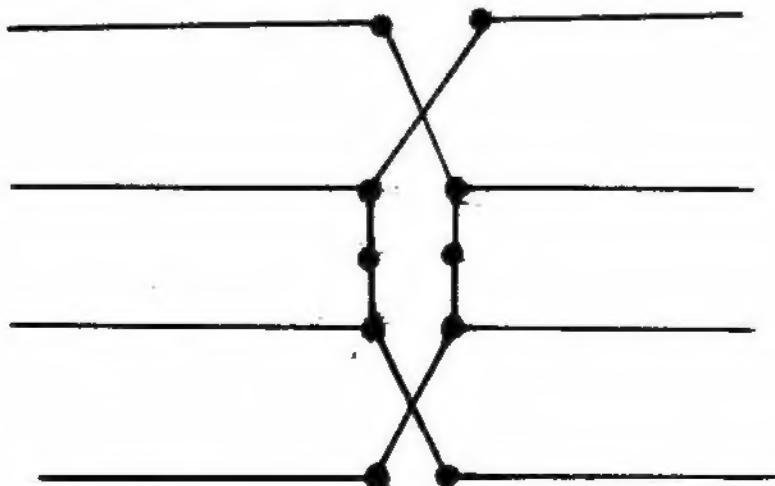


VOL. 22 No. 7 ORANGE COUNTY AMATEUR RADIO CLUB JULY 1981  
P.O. BOX 95, ORANGE, CALIF. 92668

# QUAGI

July 17th, 1981

This months Guest speaker will be WAYNE OVERBECK who is a noted author and QUAGI antenna inventor. This should be a very interesting meeting. Everyone should try to make this one for sure if he or she is interested in antennas and getting the most out of the station.



\*\*\*\*\*ORANGE COUNTY AMATEUR RADIO CLUB 1981\*\*\*\*\*

CLUB OFFICERS

President	FRANK SMITH	WA6VKZ	838-3271
Vice President	ROBIN HOFF	KA6HNY	731-4803
Treasurer	FRANK GREGG	WB6KJS	968-1450
Secretary	HOWARD ATWELL	KA6CZI	779-5797
Activities			
Membership	BOB TEGEL	KD6XO	554-0836
Publicity	SID SHISHIDO	N6AQO	521-8380
T V I	BOB ECKWEILER	AF6C	639-5074
M A L	ERNEST PRITCHARD	WA6FOW	530-0738
M A L			
EDITOR	JOHN CHRISTOPHER	WD6GXZ	557-6399
M A L			

NETS:

Tuesdays: 10 Meter SSB-----On or about 28.775 Mhz at 7:00 P M local time. Need some 10 10 numbers or info, why not check into this net. Look for W6ZE as Net Control.

Wednesdays: 15 Meter CW Novice Net--On or about 21.175 Mhz at 7:00 P M local time. All novices are invited to join in. We will slow down for you. Look for W6ZE as Net Control.

" " 15 Meter SSB-----On or about 21.375 Mhz at 8:00 P M local time. Look for W6ZE as Net Control.

" " 2 Meter Simplex Net---Look for W6ZE as Net Control on 146.55 Mhz simplex at 9:00 P M local time.

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ORANGE COUNTY AMATEUR RADIO CLUB BREAKFAST:

PLACE: MILE SQUARE COUNTRY CLUB HOUSE  
Located midway between Brookhurst and Euclid, on the South side of the Park, in the city of Fountain Valley.

TIME: Around 8:30 AM

Date: First Saturday of each month.

\*\*\*\*\*OCARC\*\*OUR NEXT CLUB MEETING WILL BE HELD

JULY 17, 1981

MERCURY SAVINGS & LOAN  
1095 IRVINE BLVD  
TUSTIN, CALIFORNIA

TIME: 7:30 P M

Everyone is welcome to come. Why not bring a friend or neighbor and introduce them to the Amateur hobby and happenings!

ORANGE COUNTY AMATEUR RADIO CLUB

CLUB MINUTES

JUNE 19, 1981

1. The minutes at the MAY meeting were accepted as printed in the "RF".

2. COMMITTE REPORTS:

Vic, N6AHB, reported on the Novice class. Most of the students have taken the written test, and are now awaiting their results. The General course started in early June.

The Generator fund committee reported that \$141.00 is now in the Generator fund.

V P ROBIN, KA6HNY, gave a short report on the V I P program.

PRESIDENT FRANK, WA6VKZ, gave a short report on the EXPLORER POST.

3. There were no communications received by the club for this month.

4. Roll call of officers, All present except the publicity chairman.

5. Treasurers report was given by FRANK, WB6KJS, Summary: \$73.89 INCOME, \$106.00 EXPENSES, and checking account balance of \$256.00 There are no unpaid bills as of this date.

6. UNFINISHED BUSINESS:

Two club members were elected to fill the vacancies on the board. KEN KONECHY, W6HHC, was elected as the new Activities chairman. Stewart Mac Innis, W6MIL, was elected as a Member at Large.

7. No new business.

8. ANNOUNCEMENTS:

FRIED, WA6WZO, reported on the fight against the PLAIN LANGUAGE RE- WRITE, legislation now in Congress. The comments deadline has been extended to August 21, 1981. Members are urged to write their representatives, expressing their opposition.

The West Coast Amateur radio Club, needs volunteers to work the station at the ORANGE COUNTY FAIR.

9. Introduction of Visitors.

10. GOOD OF THE CLUB:

The next board meeting will be held on July 12, 1981 at 3:00 pm local. The meeting will be held at club President- FRANK SMITH's QTH. Talk in on 146.55 Mhz.

11. Frank introduced the Field Day Program-FIELD DAY PAST, Ken, W6HHC GIVE a slide show, and ART, AD6B, presented some home movies of the past field days.

Operations and rules were discussed by BOB, AD6B.

CAPTAIN CARL RODGERS, represented the USMC, and supplied the passes necessary to get on the base at EL TORO.

De: WORLD RADia News

# Amateur Radio Call Signs

Amateur Radio operators have continually expressed an interest in what are the latest call signs which have been systematically assigned. To further our policy of making the new call sign assignment system public, a list of the last call sign issued, by group, for each radio district and non-contiguous area is published. The following is a list of the last call signs assigned as of 1 May 1981.

Radio District	Group A	Group B	Group C	Group D
0	KJ9R	KC9AZ	N9CQD	KA9KYH
1	KD1O	KA1RE	N1BNP	KA1HBX
2	KM2M	KC2AL	N2CNZ	KA2MMS
3	KD3S	KB3QL	N3CDO	KA3HJH
4	NN4G	KD4II	N4ETJ	KA4UHP
5	KR5N	KC5OW	N5DHY	KA5LLY
6	NB6G	KD6XQ	N6EKW	KA6PNO
7	KI7P	KB7ZZ	N7CRK	KA7KJA
8	KN8D	KC8FS	N8CSW	KA8MTS
9	KF9W	KB9ZK	N9CFS	KA9KSW
N. Mariana Is.	AH0A	AH0AA	KH0AC	WH0AAE
Guam	AH2L	AH2AK	KH2AP	WH2ACW
Johnston Is.		AH4AA	KH3AB	WH3AAB
Midway Is.		AH6K	KH4AC	WH4AAF
Hawaii		AH6CU	KH6NC	WH6AOV
Amer. Samoa	AH8A	AH8AA		WH8AAL
Wake Wilkes Peale				WH9AAA
Alaska	NL7W	AL7CL	KL7NM	WL7AQE
Virgin Is.	KP2B	KP2AF	NP2AJ	WP2ACN
Puerto Rico	NP4F	KP4CJ	NP4CE	WP4BVB

THE PALOMAR AMATEUR RADIO CLUB  
POST OFFICE BOX 1603  
VISTA, CALIFORNIA 92083

Bob Gonsett, WA6QQQ, reports receiving direct voice signals from Orbit #1 of Space Shuttle Columbia by using simple ham radio equipment. Minutes before local sunrise on April 12, 1981 - as TV stations showed the shuttle approaching the Pacific Coast of North America - Bob detected the first doppler shifted AM modulated signals. The shuttle's transmitter was turned on only when the astronauts were talking and stayed in range for only a few minutes.

The system pictured here, built around a Mini-Circuits Laboratory Type ZAD mixer (about \$30), was all that was required. Note the 220 MHz ground plane antenna which provided surprisingly strong signals even though it wasn't cut for frequency. You might try a similar receiving set up next time the shuttle comes around. After all, S.S. Columbia is rare DX.

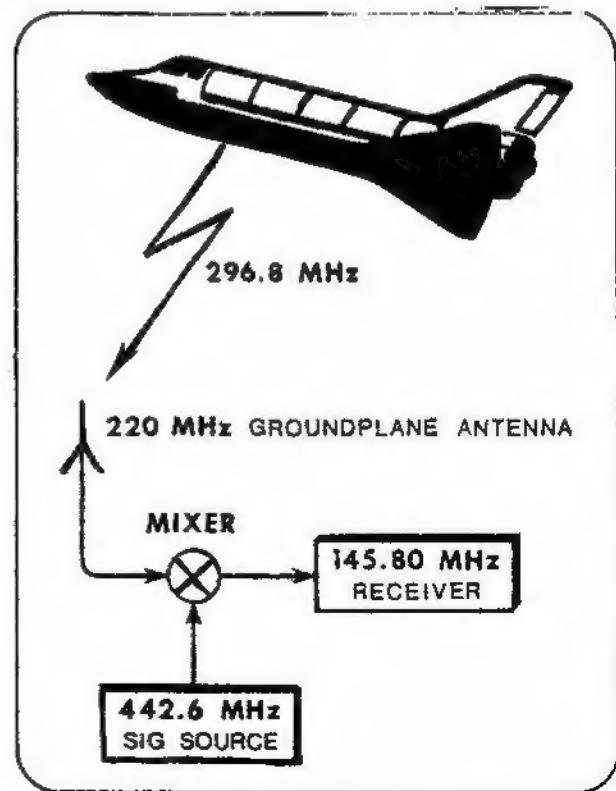
## FCC renews Smithsonian call sign

The FCC's Private Radio Bureau has authorized the Smithsonian Institution Radio Club to continue using the call sign NN3SI for its Amateur Radio station for another five years. That renewal is newsworthy because NN3SI is not a typical amateur station.

It was set up in 1976 as part of a bicentennial exhibit called "A Nation of Nations" in the National Museum of History and Technology. The FCC issued the call sign NN3SI as a one-year authorization for a special event station, but later extended it to a full five-year term when the Smithsonian made the station a permanent exhibit.

Since then, the Commission changed its Amateur Radio rules to eliminate special event call signs so the renewal of NN3SI required special action by the Private Radio Bureau before the term expired in June 1981. The bureau acted on 29 April to renew the special event call sign as an exception to the rules because of the station's unique position as a national historical exhibit, which may be viewed in operation by museum visitors and heard by other radio amateurs throughout the world.

Cards and letters received by the Smithsonian radio club acknowledge the unusual call sign NN3SI representing Amateur Radio in the United States. The Private Radio Bureau agreed it was in the public interest to keep that call sign on the air. □



## CODE PRACTICE:

For the benefit of all the new members in the ORANGE COUNTY AMATEUR RADIO CLUB, as well as all you new Novices who participated in the OCARC NOVICES Classes these past months, here is an updated copy of W1AW's schedule. Novices take note! W1AW is one of your best bets in getting code practice in. It only takes a few minutes of your time, and it also will acquaint you with what real CW should sound like when sending at certain speeds. Just remember that W1AW is sending code practice text, and that you are the receiving party, DONT send back! as you wont be answered. CW text is sent by a machine that is programed for the day. It wouldnt hurt some of the club's GENERAL and higher class operators to take a few minutes off from SSB, and go down and copy W1AW from time to time just to keep your fist in shape, and your ear in tune HI.

# W1AW SCHEDULE

APRIL 26 - OCTOBER 25, 1981

Normal visiting hours are Mon.-Fri. from 7:30 A.M. to 1 A.M. EDT and on Sat. and Sun. from 3:30 P.M. to 1 A.M. EDT. The station address is 225 Main St., Newington, CT 06111 (about 7 miles south of Hartford). Note: ARRL office/visiting hours are 8-5, Mon.-Fri. Maps with local street detail are available upon request. If you desire to operate W1AW, you must have your operator's license with you. W1AW is available for operation by visitors Mon. --Fri. between 1 and 4 P.M., local time. The station will be closed May 25, July 4, and September 7. Staff: Chief operator/Ast. Communications Mgr., C. R. Bender, W1WPR; Chris Schenck, W1EH; Charles Chadwick, K8AXL.

**IN A COMMUNICATIONS EMERGENCY monitor W1AW for bulletins as follows:  
Phone, on the hour, RTTY, 15 minutes past the hour, CW, on the half hour.**

Code practice and bulletin transmissions are sent on the following schedule: MTWThFSSn = Days of Week Dy = Daily

UTC	Slow Code Practice Fast Code Practice Cw Bulletins RTTY Bulletins Voice Bulletins	MWF: 0200, 1300, 2300; TThSSn: 2000; S: 0200 MWF: 2000; TTh: 0200, 1300; TThSSn: 2300; S: 0200 Dy: 0000, 0300, 2100; MTWThF: 1400 Dy: 0100, 0400, 2200; MTWThF: 1500 Dy: 0130, 0430
EDT	Slow Code Practice Fast Code Practice Cw Bulletins RTTY Bulletins Voice Bulletins	MWF: 9 A.M., 7 P.M.; TThSSn: 4 P.M., 10 P.M. MWF: 4 P.M., 10 P.M.; TTh: 9 A.M.; TThSSn: 7 P.M. Dy: 5 P.M., 8 P.M., 11 P.M.; MTWThF: 10 A.M. Dy: 6 P.M., 9 P.M., 12 P.M.; MTWThF: 11 A.M. Dy: 9:30 P.M., 12:30 A.M.
CDT	Slow Code Practice Fast Code Practice Cw Bulletins RTTY Bulletins Voice Bulletins	MWF: 8 A.M., 6 P.M.; TThSSn: 3 P.M., 9 P.M. MWF: 3 P.M., 9 P.M.; TTh: 8 A.M.; TThSSn: 6 P.M. Dy: 4 P.M., 7 P.M., 10 P.M.; MTWThF: 9 A.M. Dy: 5 P.M., 8 P.M., 11 P.M.; MTWThF: 10 A.M. Dy: 8:30 P.M., 11:30 P.M.
PDT	Slow Code Practice Fast Code Practice Cw Bulletins RTTY Bulletins Voice Bulletins	MWF: 6 A.M., 4 P.M.; TThSSn: 1 P.M., 7 P.M. MWF: 1 P.M., 7 P.M.; TTh: 6 A.M.; TThSSn: 4 P.M. Dy: 2 P.M., 5 P.M., 8 P.M.; MTWThF: 7 A.M. Dy: 3 P.M., 6 P.M., 9 P.M.; MTWThF: 8 A.M. Dy: 6:30 P.M., 9:30 P.M.

No 0200 UTC code practice on May 9, 1981 and Sept. 13, 1981 (Frequency Measuring Test nights).

Code practice and cw-bulletin frequencies: 1.835, 3.58, 7.08, 14.08, 21.08, 28.08, 50.08, 147.555 MHz.

RTTY bulletin frequencies: 3.625, 7.095, 14.095, 21.095, 28.095, 147.555 MHz.

Voice Bulletin frequencies: 1.835, 3.99, 7.29, 14.29, 21.39, 28.59, 50.19, 147.555 MHz.

On MWF, 1400 through 2200 UTC, transmissions are beamed to Europe on 14, 21 and 28 MHz.

Slow code practice is at 5, 7½, 10, 13 and 16 wpm.

Fast code practice is at 35, 30, 25, 20, 15, 13 and 10 wpm.

Code practice texts are from QST and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds. For example, "Text is from February 1981 QST, pages 9 and 82" indicates that the main text is from the article on page 9 and the mixed number/letter groups at the end of each speed are from the contest scores on page 82.

On Fridays, UTC, a DX bulletin replaces the regular bulletin transmissions.

Cw bulletins are sent at 18 wpm; Teletype bulletins are sent at 60 wpm with 170 Hz shift, then repeated on 110 baud ASCII.

## ORANGE COUNTY AMATEUR RADIO CLUB Inc.

## FINANCIAL REPORT--JUNE 1981

INCOME:

DUES.....	\$ 10.00
COFFEE.....	\$ 2.38
SWEEPSTAKES.....	\$ 51.00
GENERATOR FUND.....	\$ 20.00
.....TOTAL	\$ 83.38

EXPENSES:

\$ 18.00...	STAMPS
\$ 42.39...	SWEEPSTAKES PRIZES
\$ 3.37...	COOKIES
\$ 18.13...	RF LABELS (3 Months)
\$ 2.50...	CLUB FILING FEE
.....	\$ 84.39 TOTAL.....

GENERATOR FUND ( IN CHECKING ACCOUNT).....\$ 156.75

CHECKING ACCOUNT BALANCE AS OF JUNE 30, 1981.....\$ 255.66

SAVINGS ACCOUNT BALANCE AS OF JUNE 30, 1981.....\$ 772.03

**WOODPECKER PRACTICE TARGETS**

AND PROTEST DEVICES FOR HAMS WHO ARE SERIOUS ABOUT BLOWING UP THE BIRD

HELP TARGET THE RUSSIAN  
WOODPECKER FOR EXTINCTION



RUSSIAN WOODPECKER HUNTING CLUB

PO BOX 29000 SUITE 274  
SAN ANTONIO, TX 78229 USA

Since 1976 the Russian Woodpecker has disrupted global communications. For 5 years the bird has clobbered Amateur, Commercial, and even vital Military communications. What has been done? Commercial op's in 10 European countries threatened to boycott communications with Russian shipping. FCC protested via the State Dept. Most nations filed diplomatic protests. WARC 79 talked about it. Vigilantes try various electronic countermeasures of dubious value, but which add to QRM. Defeatists devised semi-effective blankers; and the Australian hams whipped up a May Day protest to Soviet Embassies....a good idea, at last, but so lacking in publicity that you probably didn't hear about it. For 5 years the Russians have been giving YOU the bird! Don't Get Mad - Get Even! Give it back to them! With Russian Woodpecker Hunting Club's OFFICIAL WOODPECKER TARGET you can laugh as you practice, and get ready to ambush the bird on his next fly-by. Blow him up, or just devastate the 10 Ring with a paper punch. The cute, uniformed bird is unmistakably Russian. Unlike the real bird, this one sits still, begging to be blasted. Poor shots get 2 points just for blowing his tail off. 5 years of his rat-tat-tat have been hard on your nerves, so for a buck, indulge yourself. Have some fun...Zip Public Enemy Number One! Also makes an appropriate dart board for your ham shack. When he forces you to QRT, throw darts!

Now all of this is not without purpose. It is hoped it will start a protest that will be successful in putting the Russian Woodpecker on the Extinct Species List. 5 years of soft diplomacy only got us more Woodpeckers; they now seem to hammer in shifts! Isn't it time for some heavy-duty diplomacy? Send a no-nonsense message, and urge others to send them! Send your best target to: Brezhnev, PO Box 88, Moscow. Shoot the Soviet Ambassador one!!

\*\*\*\*\*  
TARGETS 3/\$1 PP US, Canada, Mexico ; T-Shirts: Russian Woodpecker Hunting Club, Expert  
2/1\$ (3 IRC's) Airmail Elsewhere ; Marksman, Target Logo. Give Adult size. A real  
banger for hamfests & meetings. \$8 PP US & Canada

HUNTING LICENSE: A gag of course, but you might need this.....especially if you're into electronic countermeasures (ECM). 50¢ or 2 IRC's, PP, with target order.

FIELD DAY 1981:

A good time was had by all who participated in the Field Day activities of the ORANGE COUNTY AMATEUR RADIO CLUB, out at the EL TORO MARINE CORP Station, site of this years Field Day activities. Many thanks should go to Captain Carl Rodgers, KA60AL, who really helped put this bash together with the extra manpower from the Marines. Well done Captain, well done.

Bob Evans, WB6IXN, our club's resident tent expert, arrived at the Field Day site, only to find that he was out of a job this year hi, as the old saying goes, all ready for action-but nothing to do. Seems Captain Carl had the situation well in hand, and to everyones amazement, all the Field Day tents were all set up and ready to go upon the arrival of the early birds of the club.

Bob Eckwieler, AF6C, got up Saturday night for a midnight snack and found that a snake had beaten him to it! The snake was on his way through the 15 meter tent when Bob caught sight of it.

How did everyone like the Sunday morning breafast? KB6MT, as well as Alex, W6RE, were seen doing their thing at the grill. How was the sssausages? HI.

Bob Tegel, KD6XO and his 10 meter crew had their share of trouble as they had to reconstruct their 10 meter antennas several times. Seems someone forgot to connect the coaxial cable to one of the antennas after it was installed, and the whole thing had to be taken down and done over. Has Bob discovered a new way to transmit with an antenna without coax? OY VAY.

31 operators signed up to operate the various field day transmitters this year, but many more show ed up to help out with the log - ging and the dupe sheets or other various things. There were all kinds of exotic foods around the site, from knochworst, to Teri-yaki steak in the 15 meter tent. Hot dogs, beans, and cakes also filled the air and stomachs of the membership and guests, as well as a few cases of indigestion! How do you spell relief?

Operations on the various bands ranged from very good to poor on others. 10 meters was not in very good shape this year, but did yield some contacts, as well as DX from down under in Australia and New Zealand. Several DX stations were noted on some of the other bands, with catches from Norway and Germany as well as a few other spots noted on the logging sheets. 15 meters started out slow on Saturday morning, but got better as the day progressed on, by early evening the band had died out. Sunday morning turned out to be quite good for 15 meters in the last few hours of operation. 15 and 20 meters proved to be about the same, Fast and crowded. Ted, K6LJA, and Don, W600H, provided the club with some good point totals with their expertise at the Key. Rumor has it that some pretty good brass pounding was going on between these two operators at the site. Bob Maller, WB6AJV, was even noted as operating this year and has become a crack operator now. Captain Carl,KA60AL, Even tried his hand at the microphone with

the help and guidance of Ken, W6HHC, who with Carl barked their CQ's across the airwaves. Next year Carl will be barking out those Field Day CQ's like a pro for W6ZE.

John, WD6GXZ, decided to go out on his own this year for Field Day, by operating from his QRP mobile station mounted on his motorized wheelchair. It was a shame that 10 meters proved to be a dud, as John could have really totaled up some points, since he was running 1 C status for Field Day, but the bands just did not turn out much for 10 meters. John did make 9 good contacts though, so it was not a waste of time, the very experience was worth it alone.

The band captains this year were as follows:

15 Meters Don Klos W6OOH  
 10 Meters Bob TEGEL KD6XO  
 20 Meters Frank Smith WA6VKZ  
 40 Meters Ron Weaver N6VO (Frank Smith the TX number you gave me was  
 80 Meters Bob Tegel KD6XO wrong for N6VO)

Watch next month for more details on W6ZE field day activities in the "RF".

DE: EDITOR

\*\*\*\*\*  
 A COMPARITIVE SUMMARY OF FIELD DAY RESULTS  
 FOR  
 THE ORANGE COUNTY AMATEUR RADIO CLUB (by KEN-W6HHC)

YEAR	80	75	40	40	20	20	15	15	10	10	6M	2M	2M	220MHZ	NOVICE				TOTAL QSO's/(POINTS)
	CW	SSB	CW	SSB	CW	SSB	CW	SSB	CW	PH	CW	PH	F3	80	40	15	10		
1968	10	224	62	396	93	328	24	430	0	68	0	0	145	0	0	0	0	1780/(3938)	
1969	0	98	0	50	0	375	0	301	0	0	0	0	169	0	0	0	0	993/(1986)	
1970	0	272	0	0	0	531	0	426	0	0	0	0	0	0	0	0	0	1229/(2458)	
1971	0	274	0	106	0	530	0	136	0	0	0	0	0	0	0	0	0	1046/(2092)	
1972	0	50	0	350	0	521	0	530	0	0	0	0	94	0	0	0	0	1545/(3090)	
1973	90	226	0	452	0	932	0	273	0	0	0	0	46	0	0	0	0	2029/(4218)	
1974	0	161	0	333	0	630	0	342	0	110	0	0	0	0	6	6	12	0	1600/(3248)
1975	80	120	154	274	40	863	140	259	0	123	0	0	0	0	0	0	0	0	2053/(4934)
1976	99	254	152	487	21	600	64	210	2	54	0	0	2	0	0	0	0	0	1945/(4566)
1977	25	243	163	199	0	843	47	486	0	309	0	4	234	0	0	19	34	4	2610/(5812)
1978	14	196	242	170	30	981	50	558	0	145	0	1	164	23	2	4	7	13	2600/(5986)
1979	0	195	198	92	42	773	0	737	0	95	0	2	124	8	0	0	0	0	2266/(5018)
1980	20	149	205	235	471	318	52	1025	0	226	12	0	100	36	0	0	0	0	2849/(7194)
1981	0	167	200	265	60	699	77	717	0	105	0	0	197	0	0	0	0	0	2487/(5648)

\*\*\*\*\*  
 SPECIAL THANKS TO KEN KONECHY, W6HHC, FOR GETTING  
 THIS CHART TO EL EDITOR, IN THE NICK-OF-TIME  
 FOR THIS MONTHS 'RF' PUBLICATION.

## HAPPENINGS:

Sporadic E propagation conditions continue to provide some interesting happenings on 10 meters the last few weeks. Who says 10 meters is shot! June 24th proved to be an interesting day for John, WD6GXZ, who worked WA7VME, in IDAHO, KB7XJ, in Nevada, W7ZKL in SALT LAKE CITY, UTAH, and also WB7FAT, in Tucson Arizona, which is ole John's stomping grounds. Each of these QSO's happened one after the other! Hows that for luck, not only did John work most of 7 land, but John also got his 49th and 50th states in for a 10 meter Worked All States! as well as a few 10 10 numbers and a good VP number for the LUCKY 13 Award that 10 10 International puts out.

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## 10 10 News:

For all you 10 10 members in the OCARC, please note that on July 18 and 19th, 1981 there will be the Summer contest for 10 10 members. Though 10 meters has not been its best, dont give up on trying to catch the numbers that will be floating around that weekend, as well as the certificate numbers for all of you who are into that. Last year proved to be quite good for this editor, even if you are not a 10 10 member, it is a good way to work on your 10 Meter Worked All States. John, WD6GXZ has worked 46 10-10 members states out of the 50, as well as several DX countries in the last 10 months!

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## THE FCC IS LOOKING FOR YOU:

The FCC has announced that it is in need of volunteer examiners to administer the Exam by Mail to handicapped applicants who can not travel to FCC Offices for examination. If you have the time, and hold a GENERAL CLASS or higher license you may be eledgible to become an appointed volunteer examiner for the FCC. Licensed Amateurs who wish to volunteer their services for this program should furnish the following information to their local distric FCC offices:

- 1: Their full name, address, and telephone number.
- 2: Class of license held and call sign
- 3: The distance you are willing to traval from home to administer an exam to an applicant, as well as any other limitation you may have in order to do it.

The commission rules permit the Technician, General, Advanced and Extra class exams to be given by volunteer examiners at a location other than FCC offices, when the applicant shows cause by physician certification that he is not able to travel because of protracted disability preventing his travel.

DE: QST

League Lines

## FIRE UP THE RIG FOR 160 Meters:

As of June 10th, 1981, Amateurs were given greater power privileges on 160 meters. From 1800 to 1900 Khz a maximum of 1000 watts DC input may be used. Only the A 1 and A 3 modes may be used, there are still certain restrictions as far as power in the 1900 to 2000 Khz range of the band. For greater details see July QST magazine, League Lines, page 10.

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ORANGE COUNTY AMATEUR RADIO CLUB Inc.  
POST OFFICE BOX 95  
ORANGE, CALIFORNIA 92688

VOL. XXII, NO. 7 JULY 1981  
FIRST CLASS MAIL!!!  
DATED MATERIAL!!!